UNION CARBIDE

NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 6 - No. 6 March 20, 1975

QUESTION BOX ??

If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, **Nuclear Division News.** *(Or telephone it in to your plant news representative.) You may or may not sign your name. It will not be used in the paper.*

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

EDITOR'S NOTE: This question is typical of several received concerning this matter.

QUESTION: I was quite interested in the benefit costs to Union Carbide story in the February 20 issue of **Nuclear Division News.** I found a .7 percentage variance in the amount of social security average per employee paid by UCC-ND and all other Energy Research and Development Administration contractors. Does this not mean that more ERDA contractor employees are earning salaries above the base requirement of social security, and thus making higher salaries than us?

ANSWER: Several ERDA contractor sites, primarily those associated with the University of California, have very few employees covered by social security. Their very low percentages are the primary reason for the overall average being 0.7% lower than UCC-ND's (3.7% vs. 4.4%).

QUESTION: Why do you insist on saying that fringe benefits cost Union Carbide money? We all know that benefit plans cost in the Nuclear Division do add to overhead, but are reimbursed by ERDA.

ANSWER: The purpose of the current series of articles is to show that pay for time not worked and costs of additional benefits do involve significant amounts of money. It is common knowledge, as you state, that UCC is reimbursed for costs associated with operation of the Nuclear Division, including salaries, benefit plans costs, materials, etc.

In all other parts of Union Carbide, incidentally, these costs are paid for by customers when they buy Union Carbide products. In this Division, Union Carbide is merely providing a management service and the customers happen to be ERDA and other government agencies.

QUESTION: One of the most satisfying experiences to be had at Oak Ridge is the soothing hum of a dial tone, heard after dozens of futile attempts to call Knoxville by dialing "9". Most of us, however, would prefer to use our time and telephones more efficiently, and would gladly sacrifice the sense of accomplishment for the convenience of hearing that lovely dial tone on the first try. Is there any chance of expanding the capacity of these tie-lines to Knoxville and other cities?

ANSWER: There are at the present time 46 trunk lines to Knoxville. These are adequate to take care of business calls. If you can't get a line to transact official business, go through the Nuclear Division official operator who will complete the call. If you are trying to place a personal call, place it through the Oak Ridge system and charge it to your home phone.

QUESTION: One of the employees in our division went through several sets of walkie-talkies which were being sold at the Company Store before he found one that would work. After being informed that these units were bad, the people who work at the store left these faulty units on display for sale. Since we have heard these

(Continued on page 10)

IN THIS ISSUE

3rd in series

Holidays, other absences part of payroll dollar

This is the third in a series of articles designed to show employees how many cents per payroll dollar your employer spends for the various employee benefits and how you can determine the cost of individual benefits. In our article in the last issue we discussed the cost of the vacation benefit. We pointed out that each week of vacation with pay costs 1/52 of annual pay or approximately 2% or 2 cents per payroll dollar.

Holidays and other time off from work with pay for reasons such as sickness, jury duty, military duty, etc., are Company benefits which we often take for granted. But like the vacation benefit, these benefits also have their costs which are not very difficult to determine.

Cost is real

An employee might say that since everyone is off on holidays, or at least most employees are, it does not really cost anything. If one reaches this conclusion, he or she is really saying that they are being paid for work that is not productive. If the work being done is productive, the cost is real when it is not done. In the long run, more employees are required to do a given amount of work if each of them does not work on 10 holidays and if the average employee also misses work for approximately 9 more days for other reasons, than if each employee worked 5 days a week each week of the year.

The Company recognizes 10 official holidays each year. These 10 days are equivalent to 2 weeks of pay without work. Since each week paid for but not worked costs approximately 2% of annual pay or 2 cents per payroll dollar, the cost of the holiday benefit is approximately 4% or 4 cents per payroll dollar.

In addition to official holidays, employees also miss work for such reasons as sickness, jury duty, military duty, etc. Although the amount of pay for various absences differs depending on the kind of absence and the payroll involved, most absences involve partial or full pay.

Compute individual cost

Each employee can compute his own cost during 1974 by calculating pay received for days not worked (other than holidays) during that period. Convert this to cents per hour by dividing the amount involved by

(Continued on page 10)

ORO 75-88-3

ERDA HEAD VISITS — Robert C. Seamans Jr., Administrator of the U.S. Energy Research and Development Administration, recently visited facilities in the Oak Ridge area. He accompanied Akbar Etemad, Head of the Iranian Atomic Energy Commission. Kenneth W. Sommerfeld, Assistant Plant Manager at the Oak Ridge Gaseous Diffusion Plant, describes the toll enrichment facilities to the visitors. From left are Nelson Sievering, assistant administrator for international affairs, ERDA; Etemad, Seamans, Robert J. Hart, Manager of the Oak Ridge Operations of ERDA; and Charles A. Keller, acting Deputy Manager of ORO-ERDA.

Studies show thermostat reductions conserve energy

An energy conservation study at Holifield National Laboratory shows that reductions of thermostat settings in all U.S. homes from 72 to 68 degrees during the winter heating season could result in savings equivalent of more than 2.3 percent of the nation's total energy consumption.

Further, additional nighttime setbacks from 68 to 60 degrees could increase the savings to 3.6 percent - and to 4.1 percent if thermostats were set back at night to 55 degrees. The 4.1 percent reduction is equivalent to one-fourth of U.S. petroleum imports, which now total approximately 6.5 million barrels per day.

HNL-NSF program

The study, "The Energy Conservation Potential of Winter Thermostat Reductions and Night Setback," was carried out under the Laboratory-National Science Foundation RANN (Research Applied to National Needs) program by David A. Pilati, staff member in the analysis and evaluation department of the Laboratory's Energy Division.

It was supported jointly by the Federal Energy Administration and NSF under an interagency agreement with the U.S. Energy Research and Development Administration (ERDA).

Night setbacks save

The study notes that many Americans have believed that reducing their thermostat setting below 68 degrees at night will not save additional energy, because of the increase required to re-heat the house to daytime levels in the morning, but it points out that this notion is incorrect.

In fact, the nighttime setbacks have the potential for nearly doubling the energy savings realized through initial reductions in thermostat settings from 72 to 68 degrees.

According to the study, the strategy of nighttime setbacks hasn't received wide acceptance due to the lack of information concerning its validity as a conservation technique. But because nearly one-fifth of the total energy budget is used in the home - and 57 percent of this for space heating - the study concludes that "more efficient use of energy in home heating could have a major impact on residential as well as total energy demand."

$ Savings more in cold

The study found that, percentagewise, the energy savings resulting from thermostat reductions and night setbacks are greater in milder climates than in more severe ones. But the actual dollar savings in energy costs are greater in colder climates, because fuel bills are higher in these areas.

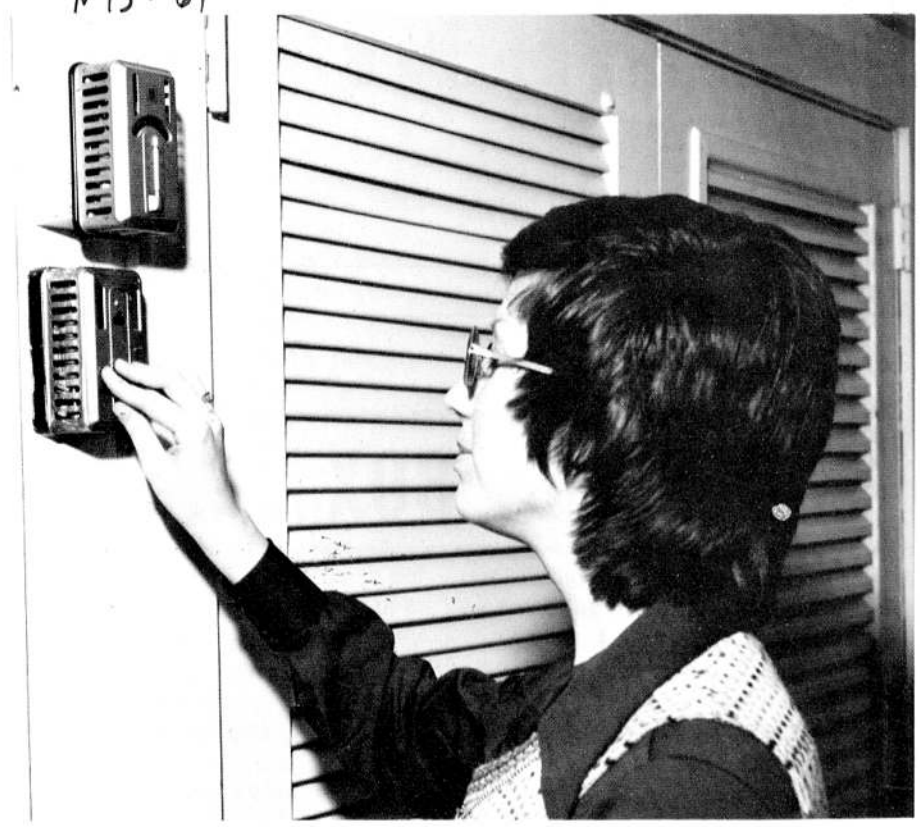
As an example, setting back the thermostat from 72 to 68 degrees in Minneapolis saves 14 percent on energy use, compared to 30 percent in Atlanta, but the homeowner's actual savings in energy - and heating expense - would be more than 50 percent greater in Minneapolis.

Therefore, the economic incentive to the homeowner is greater the colder the climate in which he lives. The study analyzed the overall nationwide energy conservation potential for several combinations of day and night thermostat settings. State-by-state savings have been tabulated in savings as energy equivalent in millions of barrels of crude oil.

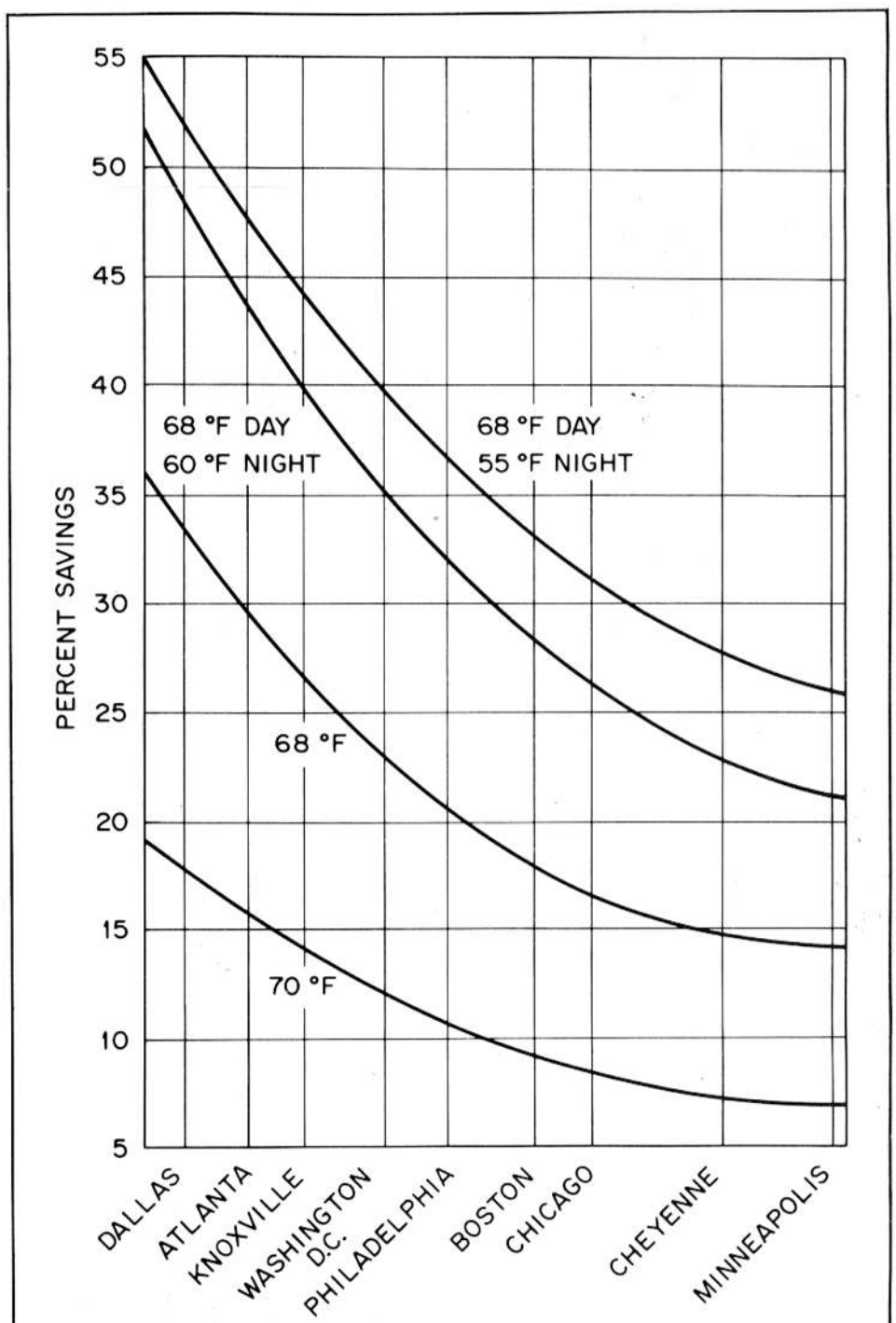
Nine cities charted

Based on the study, a chart has been prepared to illustrate savings predicted for nine U.S. cities for thermostat setbacks from 72 to 70 degrees, 72 to 68, and from 72 to two day-night combinations - 68/60 and 68/55.

Charted are predicted savings for Dallas (maximum 52 percent), Atlanta, Knoxville, Washington, D.C., Philadelphia, Boston, Chicago, Cheyenne and Minneapolis (maximum 26 percent). These nine locations were selected to represent a broad range of weather conditions. Estimates for any other area may be made by reference to one of those listed with similar winter temperatures.



DOWN GOES THERMOSTAT — Debby Cooper, Y-12's technical information services, adjusts an in-plant thermostat to conserve energy. Laboratory studies reveal that cutting down the thermostat can reduce fuel consumption in the home by a good margin.



Predicted energy savings for several thermostat settings (72° F is the reference setting and night setback is from 10 p.m. to 6 a.m.)

McPherson promoted in plant protection

George F. McPherson has been promoted to a fire and guard lieutenant in the Shift Superintendents and Utilities Division in the Y-12 Plant.

McPherson

He served in the U.S. Army for three and one-half years before coming to Y-12 in 1943. A native of Lenoir City, he has been in the guard department for the past 28 years.

Mrs. McPherson is the former Dora Mae Lyle, and they live at 318 West Vanderbilt Drive, Oak Ridge. The couple has two married daughters.

NUCLEAR DIVISION NEWS

UNION CARBIDE

Published twice-monthly for
The Employees Of
UNION CARBIDE CORPORATION
NUCLEAR DIVISION

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Engineering laurels gleaned by Nuclear Division staffers

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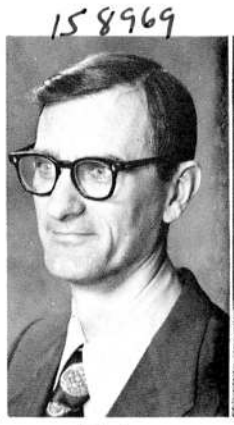

Bieber

Lundin

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Slaughter

Pickel

Pal.

McMahan

Five Nuclear Division engineers gleaned honors last month in Engineers' Week festivities. The Oak Ridge Chapter of the Tennessee Society of Professional Engineers tapped the engineers at a mayors' breakfast staged during the week.

Myrin I. Lundin received the TSPE-OR award as the "Outstanding Engineer in Management." He is superintendent of mechanical engineering for the Nuclear Division and previously served as head of the Reactor Division's design department at Holifield National Laboratory. He was also project manager for the Health Physics Research Reactor.

After graduation from City College of New York, he was employed by the General Electric Company and the Kellex Company before joining Union Carbide.

Headed local ASME

Lundin is past chairman of the East Tennessee Section of the American Society of Mechanical Engineers, a licensed professional engineer, and a member of the American Nuclear Society.

Charles R. Bieber was named "Outstanding Engineer in Construction, Fabrication and Testing." He holds a B.S. degree in metallurgical engineering from Purdue, and an M.S. from the University of Alabama. He served in the U.S. Army, and worked with the U.S. Bureau of Mines in Rolla, Mo., as well as at the University of Alabama. He has also done graduate work at The University of Tennessee.

Bieber joined Union Carbide in 1966 in the metallurgical development department in Y-12. He has published numerous documents in metallurgy, and is a member of the American Society for Metals.

"Young engineer"

William L. McMahan was tapped "Young Engineer of the Year" at the TSPE breakfast. He is currently head of the separation development section at the Oak Ridge Gaseous Diffusion Plant. McMahan holds a B.S. M.S. degree in engineering from Southern Illinois University.

McMahan is active in the local TSPE chapter, having served on the legislative study committee.

Thomas W. Pickel was awarded the title, "Outstanding Engineer in Design and Analysis." He holds a B.S. degree in chemical engineering from Vanderbilt University, an M.S. in mathematics from UT and a Ph.D. degree in theoretical and applied mechanics from the University of Illinois. In addition, he is a graduate of the Oak Ridge School of Reactor Technology. He is currently department manager of the engineering analysis department, located at HNL.

Criteria for LMFBR

He has been involved in the preparation and evaluation of core support criteria for the Liquid Metal Fast Breeder Reactor; the preliminary engineering work for a proposed coal liquefaction pilot plant; the preparation for elevated temperature design; and the standards on seismic design requirement for nuclear power plants.

Pickel is a member of the American Institute of Chemical Engineers, the American Society of Mechanical Engineers, and the Tau Beta Pi engineering fraternity. He is a certified professional engineer.

Gerald M. Slaughter received the award for "Outstanding Engineer in Research and Development." He is supervisor for welding and brazing research at the Laboratory, and holds eight patents in welding and metallurgical fields. He received the American Society of Metals first award of merit which was established to recognize ASM members who gave outstanding service to the organization during the year.

Chairs several committees

Slaughter is currently chairman of the ASM handbook committee on Failure of Pressures, Boilers and Pressure Piping. He is chairman of the reactive and refractory metals committee of the Welding Research Council, and is chairman of the American Welding Society's brazing and soldering committee.

He received his B.S. and M.S. in metallurgical engineering from Rensselaer Polytechnic Institute. He is a former member of ASM's national membership committee, and also served on the nomination committee.

McClain gets engineers' top achievement award

75-663

William J. McClain

William J. McClain, Computer Sciences Division at the Oak Ridge Gaseous Diffusion Plant, was one of two recipients of the "outstanding achievement award" given during Engineers' Week. The other recipient was William A. Fortune, president of Rentenbach Engineering Company, Knoxville.

The award was presented to McClain by the Tennessee Society of Professional Engineers in cooperation with local engineering and technical societies following the annual Welding and Testing Technology Exhibition and Conference.

The outstanding achievement award is based on six qualities: service to profession, personal professionalism, civic responsibility, outstanding technical accomplishments, character and service to the public.

McClain was born and raised in Etowah, Tenn. He served in various capacities in the U.S. Navy for over 11 years. He received a B.S. degree in electrical engineering from the Naval Postgraduate School of Monterey, Calif. McClain completed course work for his masters degree in electrical engineering at The University of Tennessee, prior to joining the Nuclear Division staff in 1961. He received his Ph.D. from UT in 1969.

His work has included several projects with the nuclear medical instrumentation group at Holifield National Laboratory. For the past five years, McClain has served on the Computer Committee of the Society of Nuclear Medicine. He has been chairman of the software and hardware standards group of this committee, as well as editor of the proceedings of topical meetings and its newsletter.

McClain was one of the organizers of Youth Haven (a temporary home for abused or abandoned children) in Anderson County, and is currently serving as president of its Board of Trustees. He teaches in the UT resident graduate program in Oak Ridge. McClain is a member of the Institute of Electrical and Electronics Engineers and the Civitan and Kiwanis clubs of Oak Ridge.

Floyd L. Culler Jr., Deputy Director at Holifield National Laboratory, was the Oak Ridge recipient of this award in 1974.

DeMonbrun elected secretary of CIT

150368

J. Robert DeMonbrun

J. Robert DeMonbrun, Y-12's plant protection department, has been elected secretary of the Cooling Tower Institute. The election was at the recent annual meeting held in Houston. DeMonbrun has served as president and chairman of the board for the past two years, and has also served as chairman of engineering standards and maintenance committee of the CTI.

Union Carbide has been a member of CTI since 1968. DeMonbrun participated in committee work and presented technical papers at CTI meetings prior to that time.

The CTI, heavily involved in ecology, is comprised of over 100 major companies and affiliates, principally United States corporations, with added representatives from Canada, Great Britain, Africa, Australia, Italy, Japan and South America. It is a technical organization operating in the interest of cooling tower manufacturers, owners and users of cooling towers, and the suppliers of equipment, materials and services in their manufacture.

Objectives of the organization include the encouragement of water conservation as a natural resource, prevention of pollution, the development of testing procedures, users and recognized engineering groups, and the support of research to improve the performance of water cooling towers.

RAPID READING KIT — Becky Buckley, Employee Relations Division at the Paducah Gaseous Diffusion Plant, demonstrates the Rapid Reading Kit available at Paducah to employees wishing to improve their reading skills. The Better Reading Program, distributed through Encyclopedia Brittanica, is available through the training department at Paducah, and may be scheduled by calling PAX 335.

Appalachian Inventors Fair industrial exhibit planned

The Appalachian Inventors Fair and Industrial Exhibition, providing inventors from Tennessee and surrounding states with an opportunity to display their creations to the public and to potential commercial manufacturers and licensees, will be held in Oak Ridge April 18-19.

The event is one of the first major programs planned for the new American Museum of Atomic Energy, which opened February 17. It is sponsored jointly by Scientists and Engineers for Appalachia and Oak Ridge Associated Universities, which operates the Museum for the U.S. Energy Research and Development Administration. ERDA and the Nuclear Division are also cooperating in the program.

In addition to the works of inventors from the Appalachian region, the fair and exhibition will include displays of new products by industrial organizations in the Southeast, giving these industries an opportunity to view inventions not assigned for commercial manufacture that may lead to future products. In this way it is hoped to stimulate the region's future economic development and employment potential.

First fair in 1971

Scientists and Engineers for Appalachia, with headquarters in Berea, Ky., is a nonprofit association whose principal objective is to provide a medium whereby advances in science and technology may be utilized toward the enrichment of life in Appalachia.

SEA held its first Inventors Fair in 1971 in Oak Ridge. Announcements of this spring's fair, which it is hoped will become a regular event, have been sent to inventors, patent attorneys and agents, and industrial organizations throughout the region.

Registration and other program information may be obtained by writing: Appalachian Inventors Fair, P.O. Box 388, Oak Ridge, Tenn. 37830.

Deadline April 4

The deadline for submission of entries is April 4. A panel of judges will evaluate the inventor exhibits, and awards in a number of categories will be presented at a breakfast on Saturday, April 19. A special award is also planned for the invention voted most popular by the public.

The registration fee for inventors is $10 for one invention and $5 for each additional invention. The fee for industrial exhibits is $25.

Inventors are advised that displays at the fair constitute public release and may affect issuance or subsequent validity of a patent. Accordingly, the sponsors recommend that the inventors secure or initiate patent protection prior to their participation.

Exhibits on display

Exhibits, including both those of inventors on display at the new Museum and of participating industries at the Oak Ridge Civic Center, will be open to the public from 1 to 5 p.m. April 18, and from 10 a.m. to 5 p.m., April 19. There is no charge for admission.

A public address is planned the evening of April 18 in the auditorium of the new Museum by Prof. Harold E. Edgerton of the Department of Electrical Engineering, Massachusetts Institute of Technology, on "The World of Strobe and Sonar."

Edgerton, perhaps best known for his invention of the stroboscope, is active and has made inventions in all phases of cinematography which have greatly advanced research and exploration in many fields. His illustrated talk will provide highlights of expeditions he has undertaken in the Atlantic and the Mediterranean, including the finding and confirmation of the Civil War ship, the "Monitor."

Five promotions announced in three ORGDP divisions

Five promotions have been announced at the Oak Ridge Gaseous Diffusion Plant.

Beryal F. Giles has been named a maintenance foreman in the Fabrication and Maintenance Division. A native of Lee County, Va., he has been with Union Carbide more than 30 years, prior to which time he served in the U.S. Army.

He attended Lincoln Memorial University and the Central Electronics School.

Mrs. Giles is the former Ada Middleton. The couple lives at 7233 Evanel Way, Powell. They have one daughter.

Joseph B. Marshall III has been promoted to a senior buyer in the Purchasing Division. A native of Knoxville, he came to Y-12 in 1970, and transferred to ORGDP last summer. He is attending The University of Tennessee with plans to graduate this winter.

Marshall lives at 240 Alhambra Road, Oak Ridge. His wife is the former Susan Ann Burgess. They have one daughter.

Linda Sue Roop has been named a systems analyst in the General Accounting Division. A native of Knoxville, she began her career with Union Carbide in 1972 in the central employment office. During this period, she earned her B.S. degree from The University of Tennessee, and is currently working on a second undergraduate degree.

She is a member of the National Association of Accountants and lives at 109 Cavetton Lane, Knoxville.

Truman R. Trotter has been promoted to an accounting analyst in General Accounting. A native of Knoxville, he worked in tool engineering in Y-12 from 1967 until 1969 and as a production scheduler until 1973, when he transferred to ORGDP.

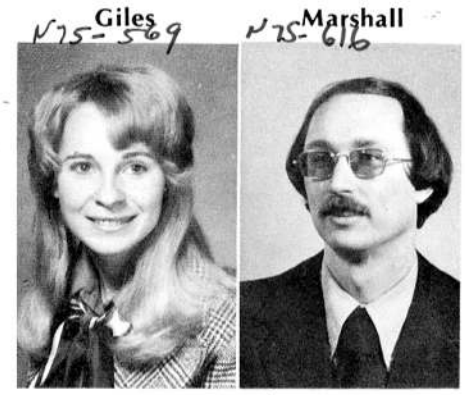
He has a B.S. degree in industrial management from UT.

Trotter lives at 245 Peterson Road, Concord. His wife is the former Shirley Ann Summers, and they have two children.

William V. Williams has been made a maintenance foreman in the Fabrication and Maintenance Division. A native of Loudon County, he joined Union Carbide in 1962, working first in the Y-12 Plant, and transferring to the Laboratory in 1964. He transferred to ORGDP in 1966 and worked there until 1969. He returned to ORGDP in 1972.

Williams lives at 316 Bellfield Road, Concord, with his wife, the former Cathy Roberts, and their two children.

Giles



Miss Roop Trotter

Williams

Edwards named again to Red Cross drive

Arthur K. Edwards, Employee Relations Division Superintendent at the Paducah Plant, has been named co-chairman of the Industrial Division of the American Red Cross fund drive for the second year.

Edwards stated that during the drive the committee will have $11,956 as its target, which is part of the overall goal of $41,088 for Paducah-McCracken County program.

PATENTS Granted

To Robert L. Brown and James N. Luton Jr., HNL, for "Torus Windings Having Asymmetric Magnet Coils."

To James M. Leitnaker, HNL, and Charles B. Pollock, Y-12, for "High Temperature Nuclear Reactor Fuel."

NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through March 13:

Paducah	219 Days	1,803,000 Man-Hours
Laboratory	97 Days	1,571,000 Man-Hours
ORGDP	65 Days	1,437,000 Man-Hours
Y-12 Plant	9 Days	304,000 Man-Hours

Seven promotions announced in Paducah plant divisions

The Paducah Gaseous Diffusion Plant has announced the promotion of seven employees.

Charles E. Brown, a 23-year veteran, has been named a senior inspector in Plant Engineering. A native of Decatur, Ala., he was with the McDonnell Aircraft Corp., Consolidated-Vultee and ALCOA before joining Union Carbide.

Married to the former Arra Nell Beasley, Brown lives at Route 11, Phipps Street, Lone Oak. The Browns have a daughter.

Senior inspector

Harold V. Carr, who joined Union Carbide 22 years ago, also was named a senior inspector in Plant Engineering. He worked with Douglas Aircraft and the National Manufacturing Company in Nashville before coming to the PGDP. He was born in Drumright, Okla.

His wife, the former Margaret Emerson, teaches social studies and Kentucky history at Lone Oak Middle School. They live at 145 Milton Drive, Lone Oak.

Thomas W. Farthing has been promoted to an instrument foreman in the Maintenance Division. A native of Elizabethton, Tenn., he has been with Union Carbide 18 years. He attended Paducah Junior College.

He lives with his wife, the former Barbara Meadors, at 3412 Lone Oak Road, Paducah. They have three children.

Randall L. Holmes has been promoted to a senior inspector in the Plant Engineering Division. A native of Paducah, he was employed with the Illinois Central Railroad before joining Union Carbide seven years ago.

The Holmes live at Route 8, Ted Williams Road, Paducah. Mrs. Holmes is the former Brenda Taylor. The couple has three children.

Eugene Miller has also been named a senior inspector in Plant Engineering at PGDP. He is a native of Lovington, Ill. He did sheet metal work and served three years in the Army paratroops before coming with Union Carbide 23 years ago.

His wife is the former Lillian Fulkerson and they live at 106 Lindsey Avenue, Metropolis, Ill. They have two sons.

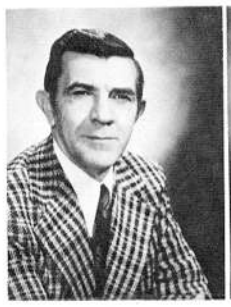
Maintenance supervisor

James E. Orazine has been appointed a maintenance supervisor in Process Maintenance. Born in Eldorado, Ill., he served in the U.S. Army and worked with the American President Steamship Line and the Sahara Coal Company before joining the Paducah organization in 1952.

He and his wife, the former Lana Kerr, live at Route 2, West Paducah. They have four children.

George A. Vinson has been promoted to an electrical foreman in electrical maintenance. A native of Johnson County, Ill., he was self-employed as an electrician before joining Union Carbide in 1951.

Mrs. Vinson is the former Virginia Jackson and they live at Route 3, Vienna, Ill. They have four children.



Brown

Carr

Farthing

Holmes

Miller

Orazine

Vinson

Mental Health Center receives UCC pledge

A payment of $8,500 has been made to the Oak Ridge Mental Health Center as part of a $25,000 pledge by Union Carbide Corporation.

The Regional Mental Health Center is a comprehensive community mental health facility serving Anderson, Roane, Campbell, Morgan and Scott counties.

Acknowledging receipt of the $8,500, John F. Byrne, Executive Director of the Center, told R.F. Hibbs, Nuclear Division President: "We wish to remark upon the fine sense of community responsibility displayed by the Corporation in making these funds available for our new facilities."

The expansion doubles the space previously available at the Center. In addition to renovating the present facility, it includes a new two-story facility, adding 20 beds, laboratories, treatment and examination rooms and other needed facilities.

A third payment of $8,000, which will complete the $25,000 pledge, will be made in 1976.

COMPANY Service 20 25 30

Y-12 PLANT
30 YEARS

Lloyd T. Murphy Jr., dimensional inspection; Kenneth E. Caughron, utilities administration; Buford E. Reneau, Alpha 5 east shop; and George M. Kirtland, Alpha 5 processing.

25 YEARS

Earl E. Goode Jr. and William J. Hayes.

20 YEARS

Curtis Ray, Erb H. Mowery, Samuel Edmonds, William M. Chandler, Glenn F. Babb, William E. Underwood and Luther C. Maples.

GENERAL STAFF
30 YEARS

Alene G. Sills.

25 YEARS

Helen R. Atchley.

20 YEARS

Janice S. Trent.

ORGDP
30 YEARS

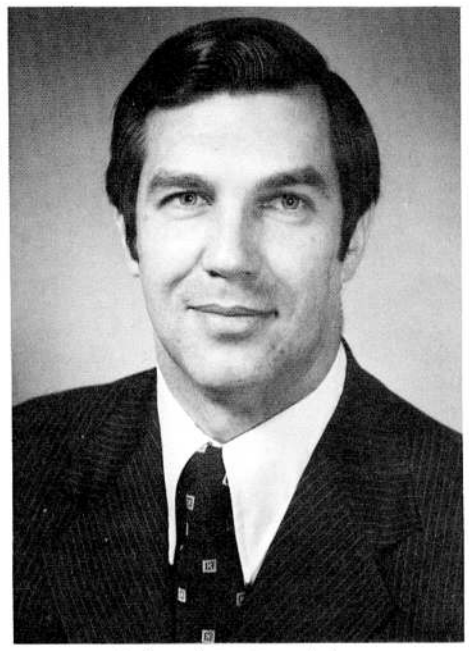
Devers W. Brannon, machine shop department; Robert L. Payne, U-235 separation department; Eugene J. Barber, materials and systems development; John A. May Jr., U-235 separation department; Glen L. Neal, development maintenance; Henry W. Gibson, fabrication shop department; David J. Johnson Jr., Engineering Division; and John C. Barton Jr., laboratory administration.

PADUCAH
20 YEARS

Sid Cogdell.

HOLIDAY RITES — Martha Lynn Carroll, Y-12's Fabrication Division, was married December 21 to E. Allen Britt Jr. The candlelight service was held in St. Andrews Episcopal Church, Harriman. After a Gatlinburg honeymoon, the couple is living at 127 Wellington Circle, Oak Ridge.

Materials management department head named



Michael R. Bradshaw

Michael R. Bradshaw has been appointed head of the materials management department in the Finance, Materials and Services Division of the Oak Ridge Gaseous Diffusion Plant. He transferred from the Y-12 Plant where he was responsible for the stores, tools and materials delivery departments.

He has been with Union Carbide for 10 years. During this time, he has been employed in the Holifield National Laboratory Personnel Services Division, the Division's General Accounting Division, and most recently in the Y-12 Materials and Services Division.

Bradshaw received a bachelor of science degree in business administration from Carson-Newman College in 1964.

He is in the Tennessee Air National Guard, a life member of Alpha Kappa Psi professional business fraternity, and is active in the Cub Scout Program at the Middlebrook Pike United Methodist Church.

He is married to the former Sandra Thompson of Chattanooga. They and their two sons live at 9009 Shallowford Road, Knoxville.

Rumors could cause our penny shortage

Rumors, it is believed, are the cause of the penny shortage. For the past two years, the mints at San Francisco and Philadelphia produced record numbers of the lowly coins.

First the false report got around that the "S" pennies were scarce and would become collectors' items. Then, around came the rumor that copper was being abandoned because of an increase in price. The two false reports coupled together to cause collectors to amass the pennies.

The price of copper is down again, and production of the coin goes on.

So, please turn them loose, urges the Treasury Department. They will be worth no more than their denomination.

Last year alone, the Philadelphia and Denver mints produced a record $42 million in pennies.

Division Retirees

Thomas Coggins

Two long-time Oak Ridge Gaseous Diffusion Plant employees retired last month, ending more than 57 years combined total company service.

Robert P. Thomas, Operations Division, joined Union Carbide in 1945. He lives at 100 Underwood Road, Oak Ridge.

Van Randall Coggins, an analyst in ORGDP's laboratory sampling department, joined the organization in 1946. He retired to his Route 3, Clinton, home.

Oldham Hall

Giles D. Oldham, ORGDP's Fabrication and Maintenance Division, will end his 30-year career with Union Carbide at the end of March, retiring to his 110 Albany Road, Oak Ridge, home. He and his wife, Letha, plan to move to North Carolina.

Edward L. Hall, grounds maintenance department at ORGDP, will end his 29-year employment at Union Carbide, also on March 31. He lives at 223 Jefferson Avenue, Oak Ridge.

Do it Today!

Pick a day to quit smoking. Face D-day and maybe grit your teeth. It could be easy or it might he hard but one thing's certain, says the American Cancer Society, you'll be lessening your chances of getting lung cancer.

Watch the Change

An obvious change in a wart or mole is a warning that ought to be heeded; it may not mean cancer, but only your physician can tell for sure, says the American Cancer Society.

Mrs. Messamore

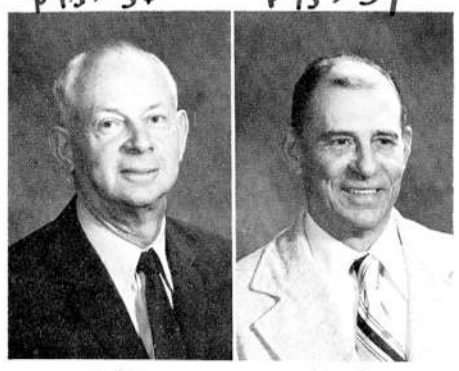
Lennie L. Messamore, Beta 2 chemistry in Y-12, elected early retirement February 28, ending more than 32 years company service. She lives at 2506 Underwood Place, Knoxville.

Brothers Campbell

A total of 376 years of company service will end for 15 Y-12ers at the end of March, as they retire.

Richard E. Brothers, plant protection, joined Union Carbide in 1949. He retires to his Route 1, Buttermilk Road, Lenoir City, home.

Monroe Campbell ends 24 years of service, retiring from buildings, grounds and maintenance shops. He lives at Route 2, Jacksboro.



Fritts Jarvis

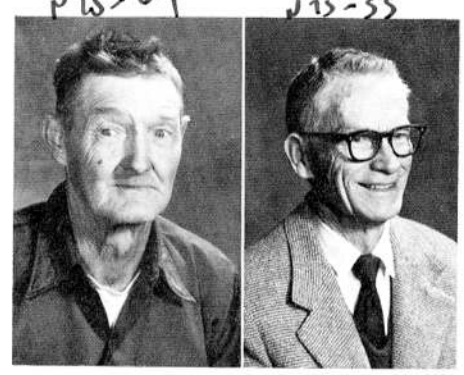
Paul A. Fritts, quality evaluation, joined Union Carbide in 1953. He lives at Route 2, Lenoir City.

Charlie F. Jarvis, Beta 2 chemistry, has 22 years company service. He lives at 144 Manhattan Avenue, Oak Ridge.

Homer F. Jenkins, buildings, grounds and maintenance shops, retires with 31 years company service. He lives at 128 Marshall Circle, Oak Ridge.

Next Issue

The next issue will be dated April 3. The deadline is March 25.

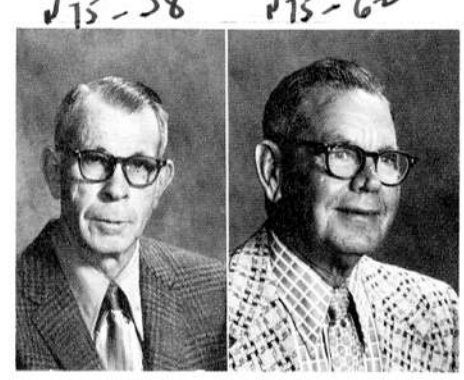


Jenkins Lawler

Russell G. Lawler, materials testing support, has 28 years service, and lives at 133 Orchard Lane, Oak Ridge.

Pugh

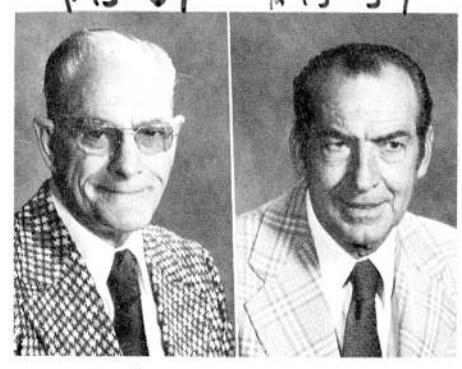
Ernest L. Pugh, tool grinding, is a 29-year veteran. He lives at Route 4, Rockwood.



McGinnis Mantooth

Ervin R. Mantooth, area 5 maintenance, has 21 years service. He lives at Route 18, Ball Camp Road, Knoxville.

Paul L. McGinnis, A wing, joined Union Carbide in 1948. He lives at 201 Lovell Heights Road, Concord.



Pruden Sexton

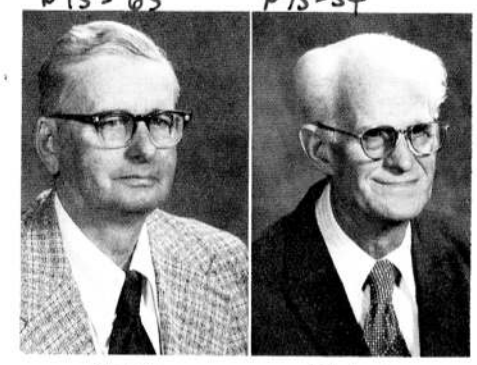
Ross C. Pruden, buildings, grounds and maintenance shops, leaves with 25 years company service. He lives at 409 West Vanderbilt Drive, Oak Ridge.

Fred R. Sexton, 9215 rolling mill, will retire with more than 30 years company service. He lives on Hillridge Road Route 1, Knoxville.

Shaw Sinclair

Thomas E. Shaw, research services, retires with more than 31 years service. He lives at Route 1, Lake City.

Herbert A. Sinclair, research services, will retire with more than 24 years company service. He lives at 9213 Burchfield Drive, Oak Ridge.



Wattles Webster

James K. Wattles, buildings grounds and maintenance shops, lives at 106 King Street, Kingston. He joined Union Carbide in 1953.

Also joining Union Carbide in 1953, was Samuel J. Webster, area 5 maintenance. He lives at 5825 Ridgewood Road, Knoxville.

Calendar of EVENTS

TECHNICAL

March 24

Computer Sciences Division Seminar: "Index Preparation," F.D. Hammerling. East Auditorium, Building 4500N, 10 a.m.

March 26

Knoxville-Oak Ridge Associated Researchers and Clinicians in Cancer Colloquium: "Clinical and Experimental Radiographic and Radioisotopic Techniques for Cancer Detection and Diagnosis." Social hour 5:30, dinner, 6:30 p.m. Knoxville Academy of Medicine, 422 West Cumberland Avenue. Reservations by March 24, call 693-9620 or 971-3181.

COMMUNITY

March 21

Oak Ridge Civic Music Association presents: Knoxville Symphony Orchestra, Arpad Joo, Director. Oak Ridge High School Auditorium, 8:15 p.m. Admission: adults $2; students $1.

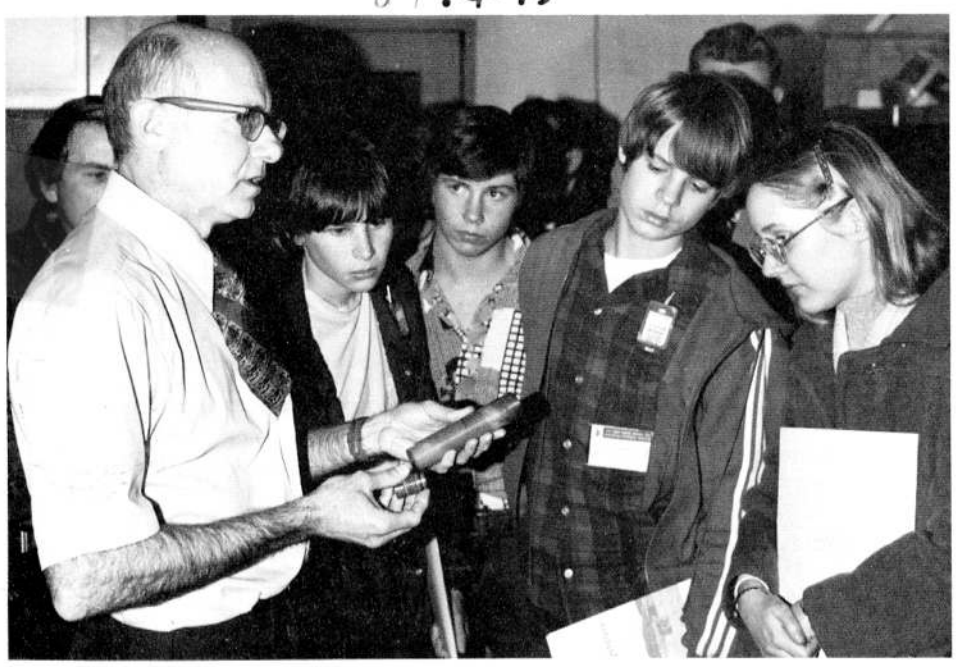
March 23

Art Center Film Club presents: "The Confession," Costa-Gavras, France, 1973. Jefferson Junior High School, 8 p.m. Admission: adults $1.75; students $1.

April 6

League of Women Voters of Oak Ridge is holding a coffee for the State Legislature. Civic Center, Rooms A and B, 7:30 p.m. The public is invited.

0774-75



JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM — About 180 students and teachers from high schools throughout the State of Tennessee visited the Laboratory recently as participants of the 10th Annual Junior Science and Humanities Symposium. The program included briefings and a tour of the new Museum of Atomic Energy, a visit to the Graphite Reactor and visits to various Laboratory divisions in which the students and teachers had expressed prior interest. William L. Marshall, Chemistry Division, is shown with a few members of the group. The symposium is sponsored jointly by the U.S. Army Research Office (Durham, N.C.), The University of Tennessee and the Nuclear Division.

Laboratory employees take nine publication, graphic art awards

4086-75

Several Holifield National Laboratory employees took top honors in the publications and technical art competition sponsored recently by the East Tennessee Chapters of the Society of Technical Communicators and Industrial Graphics International. Francis McKinney, Information Division, and Nat Johnson, ERDA, served as chairmen for the event.

Best of show winners were John Tudor, Energy Division, for his illustration "Exploded View" in the graphic arts category; and Virginia Hamrick, ORTEC, for her brochure "Delphi" in the publication category.

Categories and winners in the publications competition were:

Technical Reports: First place, "Thermal Ecology," Technical Information Center, ERDA; Second place, "Hydrolysis," Technical Publication Department, HNL.

Bulletins: First place, "Techniques for High Resolution Electrophoresis," Virginia Hamrick, ORTEC.

Annual Reports: First place, "Biology Annual Progress Report," HNL Biology Division Editorial Office.

Handbook: First place, "Nuclear Power Reactor Instrumentation Handbook," Technical Information Center, ERDA.

Catalogue: First place, "Technical Books and Monograph," Technical Information Center, ERDA; second place, "Nuclear Science," The Nucleus, Inc., Nat Johnson.

Technical Journals: First place, "Nuclear Safety," by HNL and ERDA.

House Organ: First place, "Review," Barbara Lyon, HNL.

Categories and winners of the technical art competition were:

Illustration-Line Art, Bill Clark, HNL.

"BEST OF SHOW" — John Tudor, Energy Division, displays the trophy he received for Best of Show in the technical art competition.

Illustration-Exploded View, John Tudor, HNL.

Illustration-Cutaway View, J.T. White, HNL.

Promotional - Cover Design, First place, Same Patterson, ORTEC; second place, Nat Johnson, Technical Information Center, ERDA.

Promotional - Graphics, first place, Nat Johnson; second place, Bill Clark, HNL.

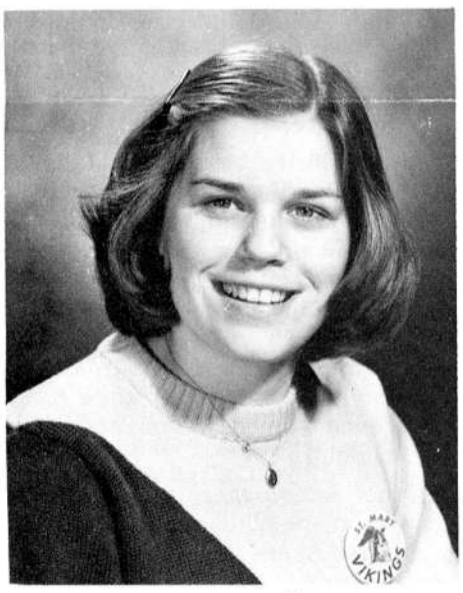
Promotional - Poster - Billboard, Nat Johnson.

Winners of the local competition will enter the national competition to be held in California in May. Winners of that competition will become part of an exhibit which will tour the United States and Canada.

0341-75

JOBS WELL DONE — Winners of the recent technical art and publications competition admire their certificates. Seated from left are: Barbara K. Lyon, Information Division; Myrtleen Sheldon, Nuclear Safety Information Center; and Anne Skeel, Biology Division Editorial Office. Standing, from left, are: Bill Clark and J.T. White, Graphics Arts Department; and Willard Rodgers, Technical Publications Department.

Lynn Bradley UCC scholar



Lynn Bradley

Lynn Bradley, daughter of Mr. and Mrs. J.W. Bradley Jr. is Paducah's Congressional Seminar scholar for 1975. Selected by the faculty and the political science department of her school, she will attend the April session of the Washington Congressional Workshop as a Union Carbide scholar.

The seminar will include classes, discussions with members of Congress, cabinet members, attendance at House and Senate chamber sessions and talks by national leaders, both in and out of government.

Union Carbide has been a supporter of the program since it first began. Last year more than 50 students were sponsored by companies throughout the country, representing all states and Puerto Rico.

Miss Bradley, a junior at Saint Mary High School in McCracken County, is active in many phases of the school's activities, including cheerleading and playing basketball.

The full cost of her participation in the Workshop will be paid by Union Carbide Corporation.

Belitz, Mynatt named foremen by two Laboratory divisions

Mynatt **Belitz**

Two employees have received promotions at Holifield National Laboratory. Kenneth S. Belitz has been named a process foreman in the Operations Division. Bruce H. Mynatt was promoted to maintenance foreman in Plant and Equipment.

Belitz, a native of Knoxville, graduated from Karns High School. He joined the Nuclear Division at the Oak Ridge Gaseous Diffusion Plant in 1953 and worked in cascade services until February, 1958. He has worked at the Laboratory since May, 1958.

Belitz is married to the former Emma Sue Violet. They have four children, and reside at 8732 Middlebrook Pike, Knoxville.

Bruce Mynatt is formerly from Graysville, Tenn. He graduated from Hixson High School and came to work at the Laboratory in 1947. Mynatt worked in the Guard Department prior to joining Plant and Equipment in 1965. Mynatt's previous assignment was as supervisory trainee in the building and utility services department.

Mynatt and his wife, Betty, reside at 133 Tyson Road, Oak Ridge. They have two children.

PATENT

Wesley E. Smith and Ottis J. Horne, Y-12 Plant, for "Method for Reproducibly Controlling the Crystallinity of Synthetic Graphite."

RECREATIONOTES

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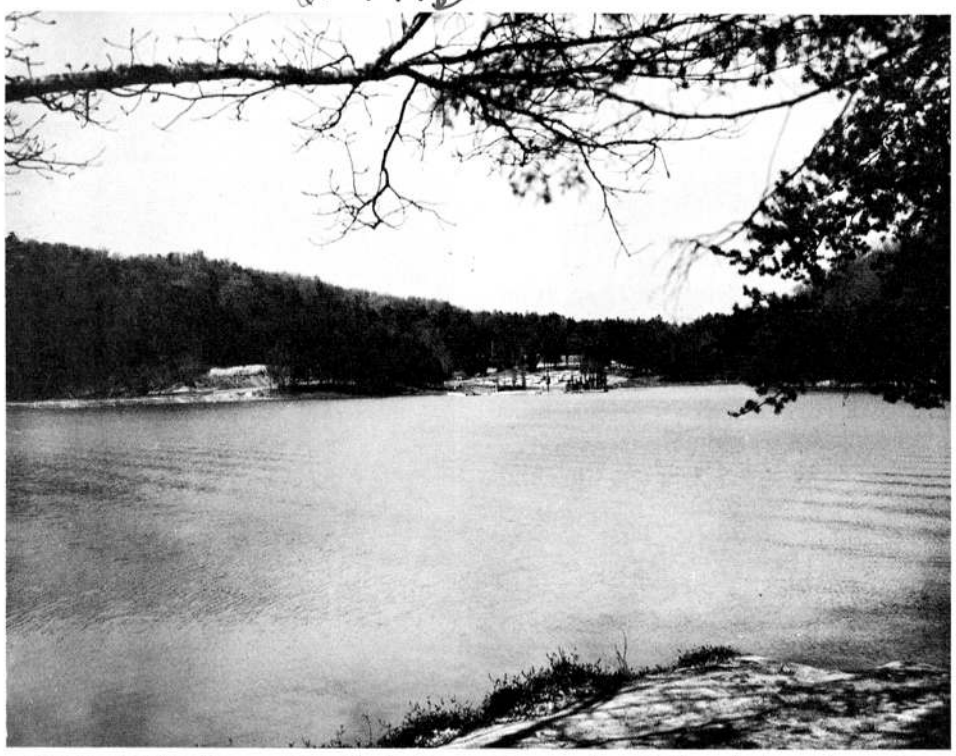


PARK BECKONS — The Clark Center Recreation Park calmly reflects the beauties of the surrounding areas, as Melton Hill Lake begins to reach its summer level again. Plans are to officially open the Park Monday, March 31.

CREDIT UNION TOURS

The Oak Ridge Chapter of Credit Unions is sponsoring two tours this spring - one to the Caribbean and one to Hawaii.

The Caribbean cruise, for seven nights, includes stops in Nassau, San Juan and St. Thomas. Round trip from Knoxville, with all meals, costs from $419 up. Departure date is May 17.

The seven nights, eight days in Hawaii, includes an American breakfast and more, with prices beginning at $487. Departure for this tour is May 31.

Brochures on both tours are available at all three of the credit union offices in Oak Ridge. Additional information on both tours may be obtained from JoAnn DeVault, 483-8411, extension 278.

The recreation department adds that if the Caribbean and Hawaii trips are not your interest, drop in, or give them a call. They have travel brochures, posters and information on a myriad of exotic places. Their number is 3-5833.

Y-12 BOWLING

The Rounders keep a four-point lead in the C League, as the bowling season's end nears. Otis Rackley, Sunflowers, hit his stride recently, rolling a single game of 243, 268 . . . and a series of 692 handicap!

The Friskies keep a death-grip on the lead in the Y-12 Mixed League, rolling hotter by each night. The Rollers, however, hit their peak recently, posting a 2419 handicap series.

The Classic League puts the Smelters in the lead by one point ahead of the Has Beens, one out in front of the Tigers. Harold Zang and Bill Ladd continued to dominate individual scoring.

ALL CARBIDE BOWLING

Final corrected lists of winners in the All Carbide Bowling Tournament show the B-Fives taking high handicap scores with a 2988. The Y-12 Splinters took the scratch trophy with a 2707 score.

In men's singles, it was Carl Butcher with a 636 scratch score; Karl Rapp with a 657 handicap tally to reap the trophy.

Manning-Bullock took the handicap trophy in men's doubles, with a combined 1319 score. Gladson-Butcher won scratch honors with a 1213.

Men's all events winners include Del Ducay, top money and handicap trophy, and overall tournament winner; Bill Ladd with the scratch trophy of 1804. Money paid down to 25.

Women's teams in the winning circle include the Lady Bugs, from Y-12, with the handicap trophy with a score of 2927. The Bill O'Kain Insurance team won the scratch honors, with a 2880.

Nell Jago won the scratch trophy, rolling a fine 564; while Martha Roberts took the handicap trophy with a 650.

In women's doubles it was Carden-Davis for the handicap trophy with a score of 1223, and Goldbert-O'Kain in the scratch winning circle with a score of 1123.

GOLF LEAGUES

Four sites have been chosen for Carbide golf leagues this year:

Southwest Point
Melton Hill
South Hills
Dead Horse Lake

Duffers wishing to enter the competition should contact the recreation department, extension 3-5833. Play should begin next month.

ORGDP BOWLING

The Tuesday League keeps the All Stars way ahead of the entire pack. Sewell Brown, R.J. Fraser and Don Kessell shared recent honors in individual game scoring. J.H. Peer took series honors, posting combos of 577 scratch, 640 handicap.

The Uptowners hold on to an eight-point lead as the K-25 Women's League presses on. Elaine Griffies and Patsy Martin shared honors in singles in February, while Janice Stiefel rolled a 232 handicap single.

The Wednesday League has the Mix-Ups two ahead of the Planners. Ray Smith rolled a 240 game recently, and L.C. Finley posted a 664 series.

LABORATORY BOWLING

The Ten Pins maintain a ten-point lead in the A League as strikers get down to the deadly competition near the season's end. The Limits hit their stride recently, posting a series of 3038 total.

The Remkeys are safely secured in first place in C League standings, miles out front of the Knuckleheads. J.D. Wolfenbarger staged a high handicap series recently, counting 671 pins. Carlos Brooks put a 246 game on the books.

The Oops team stays safely on top in the Carbide Family Mixed League, four in front of the Untouchables and Team No. 1. George Reece and Sally Stockstill paced bowlers recently.

The Lab Ladies' League recently featured the Mousechasers moving up to tie the Pickups for the lead in that competition. Ruth Slusher and Brena Stevens paced bowlers on a wet February night, while Jane Forni posted a 553 scratch, 658 handicap series.

HOLE-IN-ONE

D.D. "Monty" Montgomery, in maintenance services at the Laboratory, scored a hole-in-one at South Hills on February 21. Using a two iron, he aced hole number five, a three-par, 187-yard challenge. Don Handley and Sheryl Ramey were playing with Montgomery to help share the excitement.

KAYAK, CANOE RACES

The first Tellico River kayak and canoe races were staged March 8, 9 near Tellico Plains. Several Carbide employees were in on the planning, and many others competed.

The races, sponsored by the East Tennessee Whitewater Club, were held on a five-mile section of the upper Tellico which flows through the spectacular valley of the Cherokee National Forest.

Slalom events, where the paddler must negotiate an obstacle course down river, saw 67 contestants from 11 states. Six of these competitors ranked among the top ten in the nation in 1974, and several have represented the United States in international competition.

Those Carbide Canoe Club members who assisted with the planning were John Landry, Margaret Stone, Ed Nicholson, Reid Gryder, Mike Holland, Tom Berg, Don Jared, Sherry Janzen, Debbie Burch, Doug Colclasure, Richard Gammage and Joe Shonka.

Another activity of the CCC is the lake canoeing class taught each spring at the Clark Center Recreation Park. The safety precautions and paddling skills taught here are a prerequisite to the river canoeing courses taught by several Tennessee whitewater clubs.

Anyone interested in securing additional information about the Club may call Herb Pomerance, extension 3-1393.

PRESIDENTIAL SPORTS AWARDS

Thomas A. Lincoln, medical director at Holifield National Laboratory, recently qualified for the Presidential Sports Award in jogging, logging more than 125 miles in the qualifications. He has logged 4,900 miles in the past seven years in his jogging career, but promises to surpass his 5,000-mile goal, despite knee problems, even if he has to limp across the finish line!

Other Lab joggers qualifying for the award are William D. Carden and W. Herrell Akers.

CHEERLEADERS — Cheering the Wildcats on to victory are, from left, Priscilla Bolt, Teresa Quillen, Jodie Federer, Sarah Love, Karen Noggle and Lisa Babb. All are daughters of Nuclear Division employees.

The Medicine Chest

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

QUESTION: "The energy conservation boys have taken away my little space heater and I am cold! Is it efficient to save a little energy by reducing the room temperature and then causing everyone to be so cold they can't work effectively?"

ANSWER: When the thermostats get turned down to 65 to 68 degrees, many people "sing the blues." All other factors being equal, comfort can be important in maintaining efficiency, but one should also remember that a little discomfort can motivate people and keep them awake!

Temperature or thermal comfort has been studied extensively because of its obvious implication to the heating and air conditioning industry. The six factors which influence the thermal environment are air temperature, average radiant temperature, air velocity, relative humidity, activity level and the thermal resistance of clothing. In the indoor work environment, the first four of these are largely controlled by the company but the last two, especially the last one, are usually controlled by the individual.

When five of the above six factors are known, the desired level for the sixth can be calculated. When several of the factors vary the calculation can get quite complex, requiring a computer to solve. Extensive studies involving many hundreds of subjects have been conducted under careful laboratory conditions at Kansas State and Yale Universities in the United States and the Technical University of Denmark.

When ideal conditions for thermal comfort are created for a group of people, about 5 percent will still be dissatisfied. There will always be a few who prefer an environment which is much warmer or cooler than the majority. Perhaps surprisingly, however, ideal comfort conditions in an individual will vary only slightly from day to day or during different times of the same day. They are not greatly influenced by age and are not affected by sex or season. Individuals are consistently made uncomfortable by cooling or heating of only one part of the body, such as caused by draughts or cold floors. Muscle and joint stiffness tends to be worse at lower temperatures in individuals who have rheumatic diseases. There is little evidence that daily exposure to temperatures less than ideal has any effect on the frequency of colds. Perhaps the chronic complainers will be most reassured to learn that people's underlying comfort requirements change little when they move to a different climate and about all that changes is the amount of clothing they wear.

Activity increases internal heat production. When measured in met units (1 met equals 58 W/m^2), sleeping produces .8 met, sitting 1.0 met, standing 1.4 met, and walking 2.6 mets. Thermal resistance of clothing can also be measured using a special "clo" unit. While naked is zero clo, shorts, open shirt with short sleeves and light underwear is .3 clo, and a heavy woolen suit with long underwear and a long sleeved undershirt is 1.5 clo.

The obvious solution is to control the environment as well as possible within the limitations of energy conservation and cost. Beyond that, people will have to change the amount of their activity and clothing. When too cool, wearing warmer clothing is usually all that is necessary. Providing an insulated floor mat will reduce the problem of the cold floor. Most draughts can be eliminated or reduced by minor air duct changes. Since activity helps a great deal, getting up and running in place or walking briskly to the coffee break or to lunch should also help some. Sixty-eight degrees should be warm enough for anyone well enough to work.

QUESTION: "Would you please explain the significance of below normal body temperature on bodily functions and physical feeling of wellbeing?"

ANSWER: The usual range of normal for oral temperature is 96.5 to 99.5 degrees F (35.8 to 37.5 C). Many people think they have a subnormal temperature when it is less than 98.6 F. They must remember that individual variation is characteristic of the human species. A few adults can go even a little beyond the above limits and still be normal. When physically active, the body temperature rises considerably. It is not unusual for athletes to have a body temperature from 101 degrees to 104 degrees after strenuous exercise in a warm environment. The body temperature is lowest during sleep in the early morning and highest in the late afternoon. Emotional stress will cause the temperature to rise slightly. Young women have a temperature one to two degrees higher during the last half of their menstrual cycle before their period begins.

When the environmental temperature is low, the skin temperature declines to reduce heat loss and there is a general increase in muscle tone and stiffness. When the core temperature gets low enough, shivering occurs which generates a modest amount of internal warmth. Individuals with hyperactive thyroids have a higher normal temperature than those with an underactive gland. People with low normal temperatures function just as well as those with high normal temperatures, so you should not be concerned.

SILVER MEDAL OF MERIT — F. Perry Wilson, Chairman of the Board of Union Carbide Corporation, right, accepts the Treasury Department Silver Medal of Merit from Secretary of the Treasury William E. Simon. As chairman of the chemical industry area of the 1974 U.S. Industrial Payroll Savings Committee, Wilson spearheaded a campaign by 30 major chemical companies that resulted in a total of 23,495 new payroll savings plan enrollees.

Nuclear Division employees buy more than $2 million in bonds

Apparently, Nuclear Division employees are sold on the purchasing of Savings Bonds through regular payroll deduction. Last year, $2,202,274 were expended by employees for their purchase. (This is purchase cost and not maturity value.) More than half of all employees at the four installations currently are saving through the purchase of Savings Bonds.

Recently, F. Perry Wilson, Chairman of the Board of Union Carbide Corporation, was awarded the Treasury Department's Silver Medal of Merit for his leadership as chairman for the chemical industry in last year's Savings Bond drive. A total of 23,495 new payroll savings plan enrollees was added throughout the industry. The industry's goal was 20,000.

"We raised our goal to 25,000 for this year," Wilson says. "Currently we have the support of 83 percent of all of the major chemical companies. As chairman for the second year, I hope to get that figure as close to 100 percent as I can."

The many advantages of Savings Bonds as a means of saving have been listed many times. Retirement funds and college funds for children, of course, are high on the list. The tax advantage of these two purposes are particularly attractive. For example, income taxes on the interest earned from bonds purchased for retirement purposes may be deferred until age 75 and still furnish semi-annual retirement income after age 65. Another advantage on college funds, is that taxes can be minimized and, in many cases, eliminated, by purchasing the Bonds with the student as the owner and the employee as the beneficiary.

Payroll deductions are easy. All one has to do is to sign up during the Nuclear Division's next campaign which will be held in April. More details will appear in the next issue of the **Nuclear Division News.**

The purchase of an $18.75 a month bond amounts to a savings of $5,349 in 15 years. The current interest rate is 6 percent when bonds are held to maturity.

Savings Bonds are practically indestructible, too, adds the Treasury Department. In case of loss, they are replaced without any loss of interest.

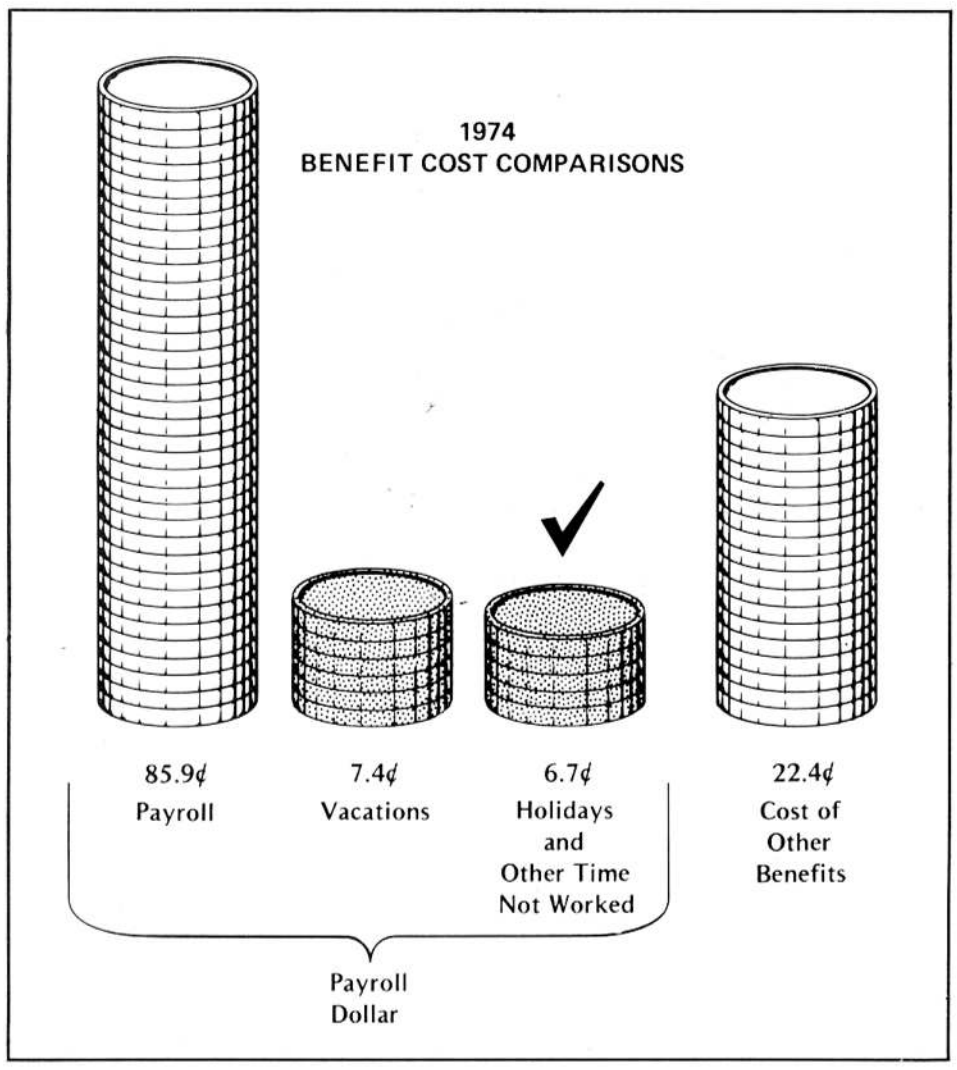
GOOD FRIDAY HOLIDAY

Friday, March 28, is an official holiday for Nuclear Division employees, as Good Friday is observed.

No employee will be required at work unless his presence is required by continuous operations or security.

PATENT GRANTED

To William C. Dietrich, Y-12; and Delmer L. Manning, Laboratory, for "Uranium Sensitive Electrode Membrane."



Electronic developments described in Industrial Cooperation bulletin

A system that permits the interfacing of an automatic data acquisition system with a programmable electronic desk calculator is one of the developments described in the latest series of Industrial Cooperation Bulletins being mailed to industries throughout the nation.

The bulletins are issued as part of the Industrial Cooperation Program of the Nuclear Division.

Each bulletin describes a specific item, reports on the stage of development, the potential industrial application and patent status. In addition, the bulletins give the names of those persons from whom additional information can be obtained.

The bulletin covering automatic data processing using a desk calculator explains that such a unit is now in production use on an X-ray spectrometer and has eliminated the need for hand transcription of data, eliminated the manual operation of a desk calculator by an analyst, and has standardized the calculation of analytical results.

Among the other items included in the latest Industrial Cooperation Bulletins are:

•An adjustable electronic motor-load alarm relay.

•A control system for machining optical-quality surfaces.

•A minicomputer for a machine tool.

•A self-contained hydraulic clamp.

•A cassette film holder for radiographic tubing and similar shapes.

•An apparatus for the even blending of particles of different sizes and densities.

•A high-temperature electrical conductivity apparatus.

•Research information on predicting power plant effects on aquatic biota.

Industrial Cooperation Bulletins are issued on a quarterly basis. Businesses interested in obtaining copies of the bulletins should contact: Austin M. Read, Industrial Cooperation Office.

Y-12 PLANT

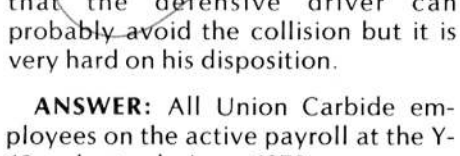
RIDER from North Knoxville, Whittle Springs Road, Washington Pike, Norwood, Clinton Highway. Cherrybrook Subdivision, to East, North or Central Portal, straight day. J.F. Baker, plant phone 3-5935, home phone Knoxville 637-1769.

LABORATORY

CAR POOL members from Waddell, West Outer or Pennsylvania Avenue areas, Oak Ridge, to East or North Portal, 8:15 a.m. shift. Tom Burnett, plant phone 3-6939, home phone 483-1975; or Dick Reed, plant phone 3-1801, home phone 483-3458.

To John J. Keyes Jr., ORGDP; Ralph E. Dail and John W. Krewson, HNL, for "Magnetic Temperature Sensor."

To Theodore A. Gens, Lake Zurich, Ill. (formerly HNL), for "Actinide Mononitride Microspheres and Process."



(Continued from page 1)

people tell individuals who had gotten some bad item that they should have checked the item before they bought it, we wonder just what the position of the Company is in matters of this nature.

ANSWER: In cases where items are sold at special sale prices, the purchaser is told to check that particular item at the time of purchase since refunds will not later be made. In all other cases, if merchandise purchased from the Company Store is found to be defective after it has been taken home, the defective merchandise should be returned to the Company Store immediately. The defective merchandise will be exchanged for comparable, good merchandise. If comparable good merchandise is not available, a cash refund will be made for the total purchase price if requested within one week of purchase.

QUESTION: Several months ago a course on "Defensive Driving" was given to Y-12 employees. Although I did not get to attend, I would like to suggest a follow-up course which I would call "Inoffensive Driving."

In a course on inoffensive driving we would be taught not to dart in between two cars while changing lanes and never to cross the painted double lines.

These two examples of "offensive" driving can be witnessed everyday on Illinois and Bear Creek Road. It is true that the defensive driver can probably avoid the collision but it is very hard on his disposition.

ANSWER: All Union Carbide employees on the active payroll at the Y-12 plant during 1973 were encouraged to participate in the Defensive Driving Course. The course did instruct the participants to allow adequate space between one's car and the car ahead. There was also a session on the art of passing and being passed. Participants in the course were taught, too, that defensive driving is largely a matter of attitude - the determination on their part to do everything reasonably possible to avoid being involved in a preventable accident regardless of what the law says, or what the other driver does. As a defensive driver you learn to "give" a little - to tailor your driving behavior to the unexpected actions of other drivers and pedestrians.

We are not contemplating any more such courses right away, but will probably repeat the series again some time in the future.

Holidays, absences

(Continued from page 1)

your annual pay. Individual costs will vary from nothing to very large amounts. For the Nuclear Division as a whole, the average number of workdays missed, in addition to vacations and holidays, was 9 days per employee in 1974.

To determine the total cost in your case for holidays and for other time paid for but not worked, add 4 cents per hour for holidays to the amount you computed in the paragraph above.

The total cost for holidays and other time paid for but not worked for the entire Nuclear Division was 6.7% or 6.7 cents per payroll dollar.

BENEFITS COST BOX SCORE	
Vacations	7.4%
Holidays & other time off with pay	6.7%

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ADDRESS CORRECTION REQUESTED

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